



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

MAR 24 2011

MEMORANDUM

SUBJECT: Documentation of a Classic Emergency Removal Action at US Oil Recovery (US Oil Recovery property and affiliated MCC property), Pasadena, Texas.

FROM: Adam Adams, On-Scene Coordinator *AA*
Prevention and Response Branch, Removal Team (6SF-PR)

THRU: *for* Ragan Broyles, Associate Director *J. Chris Peterson*
Prevention and Response Branch (6SF-PR)

TO: Samuel Coleman, P.E., Director
Superfund Division (6SF)

I. PURPOSE

This Memorandum confirms and documents the prior verbal authorization of an emergency removal action in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9604, at the U.S. Oil Recovery (USOR) and MCC properties (collectively, the Site), both located in Pasadena, Texas. This emergency removal action provided for the removal of the threat to human health and the environment posed by hazardous substances and pollutants in above ground storage tanks, totes, drums, roll-off containers, a retention pond, parking lots, containment areas, and secondary containment areas.

This action met the criteria for initiating a removal action under Section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.415. This action was initiated under the On-Scene Coordinator's \$250,000 authority on July 2, 2010. Later on July 2, 2010, the ceiling was raised by verbal approval from the Superfund Division Director to \$1,100,000. This action required less than twelve months and \$2 million to complete.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS NO: TXR000051540 (USOR property), and
TXR000079409 (MCC property)

Category of Removal: Classic Emergency Removal

Site ID NO: A6X7



A. Site Description

1. Removal Site Evaluation

The Texas Commission on Environmental Quality (TCEQ) and Harris County Public Health and Environmental Services (HCPHES) contacted the National Response Center (NRC) and Environmental Protection Agency (EPA) hotlines requesting assistance in stabilizing the USOR and MCC facilities in managing a large volume of hazardous substances and waste in preparation for a significant weather season, based on the historical Site knowledge and the near proximity to Vince Bayou (See Attachment 1 for NRC Reports 946255 and 946854) on July 1, 2010.

US Oil Recovery had performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. Historical inspections/investigations conducted by the HCPHES and the TCEQ have shown elevated levels of benzene and chlorinated solvents in some of the waste stored onsite.

The EPA Response Duty Officer was activated on the evening of July 1, 2010 to respond and assess the Site by the EPA Phone Duty Officer. Upon arrival at the property at approximately 10:30 p.m. the EPA representatives (EPA OSC and START-3 Contractor) conducted a perimeter walk assessment of immediate threats to adjacent properties and Vince Bayou, and made preparations to enter the site the following morning to conduct a more detailed evaluation.

The EPA representatives met with TCEQ and HCPHES representatives the morning of July 2, 2010 to conduct a perimeter walk while waiting on site access, due to the absence of any property personnel. The findings from the perimeter walk outside the Site fencing included a damaged fence on the northwest side of the property allowing public access, a large number of 25 cubic yard roll-off containers labeled "Hazardous Waste... '09" with damaged or inoperable tarps, and runoff water from the Site.

Access was obtained verbally from the property owner via cell phone and written from the property owner's counsel/representative offsite via email. No USOR or MCC representatives or employees were onsite or available in person to the responding EPA representatives prior to, during, or upon completion of the EPA response efforts.

Upon gaining access, the initial assessment identified at the USOR facility approximately 225 (25 cubic yard) roll-off containers with tarps in varying degrees of operability located

throughout the property, approximately 797 (55 gallon) drums in varying degrees of operability inside the warehouse, approximately 212 (300 to 400 gallon) totes in varying degrees of operability inside the warehouse, approximately 24 (1,000 to 20,000 gallon) above ground storage tanks (AST's) in varying degrees of operability located outside on the north end of the property with secondary containments with varying freeboard, an approximate 300,000 gallon capacity dual cell bioreactor in poor condition located on the northwest side of the property with approximately 3 to 4 feet of material (liquids, sludges, and solids) and structural damage (reportedly from March-April 2009), 2 (20,000 gallon) frac tanks in good condition, a large full retention pond on the west side of the property and a parking lot with standing water between the office and the warehouse.

Very shortly following the initial onsite walk, a significant rain event began, which caused an overflow of contents from the retention pond, many roll-off containers, tank farm secondary containments, and the parking lot, which drained east and northeast directly into Vince Bayou.

The MCC Recycling Property operated out of the USOR Property, but was located just southeast across the railroad tracks from USOR on both sides of Vince Bayou. The northeast section of MCC consisted of 2 clarifiers, 2 oxygen digesters, an oxygen activation sludge unit, an oxygen plant, a chlorination building, a lift station (1), a gravity thickener, an aerobic digester, a belt filter press building, a pump control room, and a chlorine contact tank (basin/concrete containment area). The southwest section of MCC consisted of a high rate trickling filter, an oil-water separator, a primary clarifier, a final clarifier, and lift stations (2). Additional fixtures are present at MCC but not listed (i.e. a documents building, etc.). No USOR or MCC representatives or employees were onsite or available to the responding EPA representatives prior to, during, or upon completion of the EPA response efforts.

A site walk of the MCC facility found gates on the bayou side of both sections of MCC with no locks, vegetation in distress (staining) from an uncontrolled release of liquids from piping in the pump control room on the west side of Vince Bayou down to Vince Bayou, and staining of the concrete at a seepage on the north corner of the chlorine contact tank (basin/concrete containment area) on the east side of Vince Bayou also draining into Vince Bayou.

2. Physical Location

The USOR and MCC Recycling facilities are respectively located at 400 North Richey Street and 200 North Richey Street in Pasadena, Texas 77506 (*see attachment 2*).

3. Site Characteristics

The Site includes a warehouse, retention pond, and several containment areas throughout. USOR and/or MCC received municipal and industrial Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. The property is located in the City of Pasadena, which had a population of approximately 146,000 in July 2009. The population within 1 square mile of the site, according to the 2000 Census, was 1,131. The MCC facility borders commercial businesses on each side, but also is split into two by Vince Bayou. There are homes within 500 feet and 250 feet of the USOR and MCC properties, respectively.

4. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant.

A preliminary assessment of the property identified the historic and on-going release of hazardous substances from a waste receiving property (USOR) and pretreatment property (MCC).

USOR roll-off containers, AST's, secondary containments, and the retention pond were visibly overflowing during the significant rain event that began on July 2. Additionally, overflow liquids drained from the parking lot and site down gradient into Vince Bayou. The roll-off containers were labeled "Hazardous Waste... '09", the liquids from the AST's and larger secondary containments had visible hydrocarbon contamination, the corrosive secondary containments field-tested pH levels were less than pH 2, and the retention pond 0 - 1 foot depth water sample (SWP) had an acetone detection at 8.2 micrograms per Liter ($\mu\text{g/L}$).

The MCC property had liquid runoff from the pump control room, lift station, and chlorine contact tank (basin/containment area). Analytical results from the pump control room (WW01) uncontrolled discharge measured acetone at 1,390 $\mu\text{g/L}$, Benzene at 18.9 $\mu\text{g/L}$, Toluene at 70 $\mu\text{g/L}$, Ethyl benzene at 57.5 $\mu\text{g/L}$, Methyl ethyl ketone at 203 $\mu\text{g/L}$, and Xylene at 426 $\mu\text{g/L}$. Analytical results from the seepage just outside the chlorine contact tank (WW02) measured acetone at 14,000 $\mu\text{g/L}$, Benzene at 46.4 $\mu\text{g/L}$, Toluene at 258 $\mu\text{g/L}$, Ethyl benzene at 757 $\mu\text{g/L}$, Methyl ethyl ketone at 198 $\mu\text{g/L}$, and Xylene at 4,320 $\mu\text{g/L}$. The seepage sample was later confirmed to be originating from a faulty concrete reconfiguration in the chlorine contact tank (also referred to as the "Z-tank" due to the configuration) at the west corner. Both samples were collected from uncontrolled discharges with no property oversight.

Drums and totes inside the USOR warehouse were found to be staged inappropriately (i.e. incompatibles staged side by side, corrosives staged in metal drums, missing lids and/or

rings, damaged, near falling, no access aisle, etc.). Drums and totes were assessed in detail following spot checks to confirm labeling accuracy. After several "Non-Haz/Universal Waste" labeled drums were found to have characteristics of flammability and/or pH levels less than pH 2 or greater than pH 10, each drum and tote was assessed, segregated according to hazard characteristic, and staged in appropriate over-packs if needed (i.e. pH 0 liquids found in metal drums were over-packed into poly over-packs, bulging drums were over-packed, etc.). A large percentage of the 797 drums and 212 totes assessed were originally mislabeled and staged inappropriately. The following table provides drum and tote assessment results:

Classification	Drum	Overpack	Tote	Count Subtotal
Combustible	45	1	9	55
Combustible, Corrosive Acid	2	-	-	2
Corrosive Acid	36	-	9	45
Corrosive Base	12	1	7	20
Empty	6	-	1	7
Flammable	339	16	62	417
Flammable, Corrosive Acid	4	-	2	6
Flammable, Corrosive Base	3	-	2	5
Non-corrosive	1	-	-	1
Non-flammable	128	4	40	172
Non-flammable, Non-corrosive	175	3	74	252
Not Tested	11	-	-	11
Potential H2S	-	-	1	1
Potential Oxidizer	-	-	5	5
	762	25	212	999

Further releases to the environment could have occurred if these chemical runoffs had not been contained and mitigated. Chemicals identified in drums, totes, tanks, roll-off containers, the retention pond, bioreactor, secondary containments, runoff and containments were hazardous substances as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14) and 40 C.F.R. § 302.4.

5. NPL Status

This Site is not on and is not proposed for listing on the National Priorities List at the time of this Action Memorandum.

6. Maps, Pictures and Other Graphic Representations

Attachment 1:	NRC Reports
Attachment 2:	Site location
Attachment 3:	Intentionally left blank; No Attachment 3.
Attachment 4:	ATSDR ToxFaq (Acetone)
Attachment 5:	ATSDR ToxFaq (Benzene)
Attachment 6:	ATSDR ToxFaq (Ethyl benzene)
Attachment 7:	ATSDR ToxFaq (Toluene)
Attachment 8:	ATSDR ToxFaq (Xylenes, Total)
Attachment 9:	ATSDR ToxFaq (Methyl ethyl ketone / 2-Butanone)
Attachment 10:	EJ Report

B. Other Actions to Date

1. Previous Actions

Prior to this Emergency Response Removal Action, EPA's involvement with USOR and MCC consisted of assigning an identification number to the USOR facility in 2003 and conducting multimedia investigations in 2009. EPA Water and RCRA submitted an information request to USOR/MCC in January 2010, and issued a Cease and Desist AO for Clean Water Act (CWA) violations in April 2010. A RCRA 7003 UAO was issued to USOR/MCC and the owner in June 2010.

2. Current Actions

No EPA response/removal actions are currently underway at the site. The EPA continues to have discussions, site walks, and meetings with the Receivership, HCPHES, and TCEQ as needed to ensure thorough PRP/Receivership removal of all Site hazardous waste and remediation.

C. State and Local Authorities' Roles

1. State and Local Actions to Date

According to a RCRA Subtitle C Identification form, the owner of USOR became the owner of USOR in January 2002 and made initial notification to TCEQ of regulated waste activity (used oil) in 2003. An EPA identification number was assigned in February 2003, and

USOR made notifications as a hazardous waste transporter and conditionally exempt small quantity generator (CESQG) in 2004. TCEQ along with Harris County Public Health and Environmental Services (HCPHES) jointly have been investigating and/or responding to community complaints involving USOR since as early as December 2005 and MCC Recycling as early as 2009. In 2009, the owner of USOR acquired a decommissioned wastewater treatment plant ("WWTP") located at 200 N Richey that was previously owned/operated by the City of Pasadena. MCC was established to pre-treat wastewater generated by USOR before discharge to the City of Pasadena publicly-owned treatment water ("POTW") facility. A summary of TCEQ and HCPHES investigations and response activities are summarized below.

TCEQ Region 12 – Houston Office, Waste Section, Industrial and Hazardous Waste (IHW) Complaint Investigation and Case Development Investigations (CDI) conducted numerous investigations at USOR and MCC Recycling. Specific citations from TCEQ investigations are listed below:

- Failure to operate according to permits (i.e. not properly labeled operating units in accordance with TCEQ permits, failure to ensure containerized waste was stored in the appropriate locations).
- Failure to obtain RCRA permits for storing hazardous waste received from off-site generators.
- Failure to obtain a RCRA permit for the storage of hazardous waste in drummed waste, Bio-Reactor and roll-off boxes for greater than 90 days.
- Improper record keeping. Waste acceptance logs did not match waste disposal logs. During investigations waste acceptance logs would indicate specific volumes of material onsite that would not match what was actually onsite. Waste disposal logs could not be tracked back to waste acceptance logs.
- Improper material storage/ management (i.e. failed to limit storage of waste to only those wastes specified in the permit, failure to maintain adequate spacing between rows of double stacked containers, containers freely leaking, and not keeping containers closed or covered).
- Failed to prevent the discharge or imminent threat of discharge of industrial solid waste or municipal hazardous waste into or adjacent to the water in the state without obtaining specific authorization for such a discharge from the TCEQ.
- Failure to create/maintain adequate secondary containment around operating units.
- Failure to receive prior authorization from the TCEQ Air Permits Section to conduct aeration of wastewater containing volatile organics stored within the Bio-Reactor. USOR failed to modify the permit to reflect this change in operation.

From 2004 to 2009, Harris County HCPHES Environmental Public Health Division EPH documented violations regarding nuisance odors, wastewater discharges, contaminated storm water discharges, and failure to obtain an air permit. Since May 2009, EPH has documented numerous violations and expressed concerns regarding both properties. Violations included wastewater discharges, contaminated storm water discharges, odor nuisances, permit violations (USOR), lack of appropriate permits/authorizations (USOR/MCC), hazardous waste storage/processing, and spills. Concerns included structural integrity of tanks at both USOR (bioreactors, at least two storage tanks) and MCC (tanks and piping in general), concerns about fire hazards (facility has been without water or electric at times), and concerns about additional spills and discharges to nearby Vince Bayou. EPH sought relief in the courts via a series of Temporary Restraining Orders and Temporary Injunctions issued in 2009 and 2010; however, most of the violations continued unabated despite the court's orders. In June 2009, an investigator from EPH observed that process equipment had been removed from both properties and also observed that many tanks, secondary containments, and containers were near to overflowing. On July 1, EPH investigators observed discharges from the USOR property during and after a heavy rain. EPH notified the NRC of the observed discharges and the potential of hazardous waste within the discharge. On July 2, an EPH investigator reported that the property appeared to be abandoned.

2. Potential for Continued State/Local Response

The EPA, HCHPES, and TCEQ will continue to have involvement with the Site until the hazardous substances have been removed and disposed of properly. In the event the Site has future incidents prior to or during the removal and disposal of hazardous substances, the NRC and EPA hotlines will be notified accordingly by the local representatives.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Section 300.415 of the NCP lists the factors to be considered in determining the appropriateness of a removal action. Paragraphs (b)(2)(i), (iii), (v), (vi), and (vii) directly apply to the conditions at the Site. Any one of these factors may be sufficient to determine whether a removal action is appropriate.

A. Threats to Public Health or Welfare

1. Exposure to Human Populations, Animals or the Food Chain, NCP Section 300.415(b)(2)(i);

The predominant threat to human populations, animals or the food chain was the potential for exposure by direct contact with acetone, benzene, ethyl benzene, toluene, total xylenes,

methyl ethyl ketone, flammables, and Corrosives in the containments, tanks, drums, totes, retention pond, bioreactor, and roll-off containers. Containments, roll-off containers, and the retention pond were visibly overflowing into the parking lots, which drained offsite into Vince Bayou. The drums and totes were not staged and managed appropriately and could easily have spilled (and reacted) into the parking lot and further into Vince Bayou. Routes of exposure existed from direct contact with skin, eyes, and mucous membranes with the leaking material; inhalation of vapors emanating from the drums and totes; and ingestion of runoff water and possibly Vince Bayou water.

Acetone is defined as a hazardous substance at 40 C.F.R. § 302.4. Exposure of moderate to high levels of acetone for a short time can cause skin irritation and damage, smell and respiratory irritation, burning eyes, headaches, light-headedness, confusion, increased pulse rate, effects on the blood, nausea, vomiting, unconsciousness and possibly coma, and shortening of the menstrual cycle in women. OSHA established the legal limit of 750 parts per million (ppm) of acetone in workroom air, which means that the workspace should have no more than an average of 750 ppm acetone over an 8-hour shift or 40-hour workweek. Acetone can be smelled by most people at concentrations of 100 to 140 ppm. Exposure pathways are inhalation, ingestion, and skin contact (*See Attachment 4*). Acetone was detected at 1,390 and 1,400 µg/L in samples collected from two uncontrolled releases at the MCC property which were draining directly into Vince Bayou. Acetone was also detected in the water sample collected from the top 12 inches of water in the Retention Pond.

Benzene is defined as a hazardous substance at 40 C.F.R. § 302.4. Exposure of high levels of benzene can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness, while very high levels can result in death. Ingestion of benzene can cause vomiting, stomach irritation, dizziness, sleepiness, convulsions, rapid heart rate, and death. The most significant effects of benzene in the human body are on the blood and bone marrow, causing a decrease in red blood cells and excessive bleeding, affecting the immune system and increasing the chance for infection. Long term exposure to high levels of benzene in the air can cause leukemia. Benzene is listed as a carcinogen. EPA has established the maximum permissible level of benzene in drinking water at 5 parts per billion (ppb). OSHA established the legal limit of 1 ppm of benzene in workplace air for an 8-hour shift and 40-hour work week. Exposure pathways are inhalation, ingestion, and skin contact (*See Attachment 5*). Benzene was detected at 18.9 and 46.4 µg/L in samples collected from two uncontrolled releases at the MCC property which were draining directly into Vince Bayou.

Ethyl benzene is defined as a hazardous substance at 40 C.F.R. § 302.4. Exposure to high levels of Ethyl benzene in air for short periods can cause eye and throat irritation. Higher levels can result in dizziness. Animals exposed to relatively low concentrations for several days to weeks have shown irreversible damage to the inner ear and hearing. Animals exposed to relatively low concentrations in the air for several months have shown kidney damage. Ethyl benzene is listed as a possible carcinogen. EPA has determined that exposure to Ethyl benzene

in drinking water at concentrations of 30 ppm for 1 day or 3 ppm for 10 days is not expected to cause any adverse effects in a child. OSHA established the legal limit of 100 ppm of benzene in workplace air for an 8-hour shift and 40-hour work week. Exposure pathways are inhalation, ingestion, and skin contact (*see* Attachment 6). Ethyl benzene was detected at 57.5 and 757 µg/L in samples collected from two uncontrolled releases at the MCC property which were draining directly into Vince Bayou.

Toluene is defined as a hazardous substance at 40 C.F.R. § 302.4. Exposure to low to moderate levels of toluene can cause tiredness, confusion, weakness, drunken-type actions, memory loss, nausea, loss of appetite, loss of hearing, and loss of color vision. These symptoms usually disappear when exposure is stopped. Inhalation of high levels of toluene can cause light-headedness, dizziness, sleep, unconsciousness, and death. High levels may affect your kidneys. EPA has set a limit of 1 milligram per liter (mg/L) toluene in drinking water. OSHA established the legal limit of 200 ppm of toluene in workplace air for an 8-hour shift and 40-hour work week. Exposure pathways are inhalation, ingestion, and skin contact (*See* Attachment 7). Toluene was detected at 70 and 258 µg/L in samples collected from two uncontrolled releases at the MCC property which were draining directly into Vince Bayou.

Xylenes are defined as a hazardous substance at 40 C.F.R. § 302.4. Exposure of high levels of xylene for short or long periods of time can cause headaches, lack of muscle coordination, dizziness, confusion, and changes in one's sense of balance. Exposure to high levels for short periods can also cause irritation of the skin, eyes, nose, and throat; difficulty in breathing; problems with the lungs; delayed reaction time; memory difficulties; stomach discomfort; and possibly changes in the liver and kidneys. It can cause unconsciousness and death. EPA has established a limit of 10 ppm xylene in drinking water. OSHA established the legal limit of 100 ppm of xylene in workplace air for an 8-hour shift and 40-hour work week. Exposure pathways are inhalation, ingestion, and skin contact (*See* Attachment 8). Xylenes were detected at 426 and 4,320 µg/L in samples collected from two uncontrolled releases at the MCC property which were draining directly into Vince Bayou.

Methyl ethyl ketone (2 Butanone) is defined as a hazardous substance at 40 C.F.R. § 302.4. Exposure to Methyl ethyl ketone can cause irritation of the nose, throat, skin, and eyes in humans. In animals, inhalation exposure to very high levels has caused birth defects, loss of consciousness, and death. Mice who breathed low levels for a short time showed temporary behavioral effects. Rats who drank it had nervous system effects. OSHA established the legal limit of 200 ppm of benzene in workplace air for an 8-hour shift and 40-hour work week. Exposure pathways are inhalation, ingestion, and skin contact (*See* Attachment 9). Methyl ethyl ketone was detected at 203 and 198 µg/L in samples collected from two uncontrolled releases at the MCC property which were draining directly into Vince Bayou.

2. Hazardous Substances or Pollutants or Contaminants in Drums, Barrels, Tanks, or Other Bulk Storage Containers That May Pose a Threat of Release. NCP Section 300.415(b)(2)(iii);

Upon arrival at the site by EPA, 797 (55 gallon) drums, 212 (300 to 400 gallon) totes, and 225 (25 cubic yard) roll-off containers were found staged throughout the site in no particular organization. Containers (drums and totes) inside the warehouse had shown little indication of segregation, spacing, and stability. Upon field hazard characterization spot checking, many of the containers had labeling and markings other than the results of the field hazard characterization tests. Also, incompatibles (acids and bases) were found adjacent to each other. Corrosives ($10 < \text{pH} < 2$) were found in poor condition rusted metal drums. Flammables were found in drums labeled "Non-Regulated" or "Universal Waste" or no markings. Bulging drums were found throughout the warehouse. Many of the roll-off containers needed tarps, bows, poles, or repairs to prevent filling up and over flowing given a significant rain event, as what occurred on July 2, 2010.

3. Weather Conditions That May Cause the Release or Migration of Hazardous Substances, NCP Section 300.415(b)(2)(v);

Pasadena, Texas is subject to several types of extreme weather conditions that could cause the release of hazardous substances, such as flooding, hurricanes, high winds, and significant rain events, such as the one that occurred on July 2, 2010 raising Vince Bayou over its banks and covering North Richey Street with approximately 4 to 4.5 feet of water in a matter of only 3 hours. At the height of this rain event, Vince Bayou was only approximately 25 feet from the property fence line. Significant rains cause overflow of the property retention pond, containments, secondary containments, and unloading bays, which all contain hazardous substances (i.e. Acetone, Benzene, Ethyl benzene, Methyl ethyl ketone, Toluene, Xylenes) and hazardous flammable and corrosive waste which drain to Vince Bayou approximately 25 to 150 feet away depending on the height of the Vince Bayou water level.

4. Threat of Fire or Explosion, NCP Section 300.415 (b)(2)(vi);

Property tanks, drums, and totes contain flammable liquids, which when not managed appropriately could result in fire and/or explosion. A fire could cause the release of hazardous substances at the site and put responding fire fighters and neighboring businesses and residents in jeopardy of exposure.

5. Availability of Other Response Mechanisms, NCP Section 300.415(b)(2)(vii)

Upon a release, assistance would not otherwise have been provided in a timely basis, because the State of Texas, Harris County, and local governments do not have the resources to deal with a site of this complexity or magnitude. The Site was referred to the EPA by both

TCEQ and HCPHES.

B. Threats to the Environment.

Runoff from the Site has the potential of contaminating the nearby Vince Bayou. A release of hazardous substances from this Site would, therefore, impact the ecosystem of the drainage pathway offsite.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances, pollutants or contaminants from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to the public health, welfare, or the environment.

V. ACTIONS TAKEN AND ESTIMATED COSTS

1. Action Description

The EPA requested access to initiate an emergency assessment and response from the PRP on the morning of July 2, 2010. Access was granted verbally by the property owner and written by the property owner's counsel on July 2, 2010. While waiting for written access, EPA and Superfund Technical Assistance and Response Team (START) contractors conducted an offsite perimeter walk of the properties and found several items of concern: no personnel onsite, gates unsecure and open, significant fence breakage, roll-off containers labeled "Hazardous Waste... '09" with no tarps, runoff from both facilities draining directly into Vince Bayou, stained vegetation, and significant containment structural damage.

Upon gaining access into the properties and conducting an onsite assessment, additional items of concern were noted: drums and totes in poor condition (i.e. rusty, ruptured, leaking, etc.), drums and totes with no access/spacing, drums and totes leaning, drums and totes comingled with incompatibles (i.e. acids and bases) with no separation/distance between, drums and totes with inaccurate labels/markings (i.e. flammables, acids and bases with labels/markings "Non-haz" or "Non-Regulated" or "Universal Waste"), metal drums containing corrosives ($10 < \text{pH} < 2$), and large volumes of liquids in containments, secondary containments, and unloading bay areas. Shortly after gaining access and conducting an onsite assessment, a significant rain event took place which caused overflowing of the retention pond, containments, secondary containments, roll-off containers, the unloading bays, and the parking lot into Vince Bayou.

On July 2, 2010 the EPA activated Emergency Rapid Response Services (ERRS) contractors to the site to contain offsite migration, mitigate the threat, and stabilize the Site. Containment actions include placement of booms and absorbent pads, use of pumps and 13 frac tanks, and establishing temporary staging areas for warehouse drums and totes following segregation. Mitigation actions include dropping containment content elevations to below overflow threat levels creating free-board or emptying completely, drum over-packing, drum and tote sampling and assessing by field hazard characterization analysis, drum and tote segregating and marking, securing roll-off containers (with tarps, bows, or poles as needed), and securing perimeter fencing (repaired section of damaged fence and replaced missing locks).

Contaminated site liquids that accumulated from overflowing roll-off containers, containments, secondary containments, the retention pond, unloading bays, leaking drums and totes, and the parking lot were shipped offsite and disposed of at the Inter Gulf Corporation property in Pasadena, Texas. A total of 71 loads totaling 393,500 gallons were shipped. Some of the liquids were neutralized to bring the pH above pH 2.0 for disposal property acceptance. Drums and totes inside the warehouse were marked according to field hazard characterization analyses, segregated, over-packed if necessary, and staged according to hazard class.

All disposal was in accordance with EPA's Offsite Rule, 40 CFR § 300.440, and CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and all transportation was in accordance with Department of Transportation rules and regulations.

Other requirements under the Occupational Safety and Health Act (OSHA) of 1970, 29 U.S.C. § 651 et seq., and under the laws of a State with an approved equivalent worker safety program, as well as other applicable safety and health requirements, were followed. Federal OSHA requirements include, among other things, Hazardous Materials Operation, 29 CFR Part 1910, as amended by 54 Fed. Reg. 9317 (March 1989), all OSHA General Industry (29 CFR Part 1910) and Construction (29 CFR Part 1926) standards wherever they are relevant, as well as OSHA record keeping and reporting regulations, and the EPA regulations set forth in 40 CFR Part 300 relating to the conduct of work at Superfund sites.

2. Contribution to Remedial Performance

This action was consistent with any conceivable remedial responses at this Site. The threat posed by this Site was mitigated by controlling the source of contamination.

3. Description of Alternative Technologies

There were no alternative technologies which could be feasibly applied.

4. Applicable or Relevant and Appropriate Requirements (ARAR)

This removal action was conducted to eliminate the actual or potential exposure to hazardous substances, pollutants or contaminants to the environment, pursuant to CERCLA, 42 U.S.C. §9601 et seq., and in a manner consistent with the National Contingency Plan (NCP), 40 CFR Part 300, as required at 33 U.S.C. §1321(c)(2) and 42 U.S.C. §9605. Pursuant to 40 CFR Part 300.415(j), fund-financed removal actions under CERCLA §104 and removal actions pursuant to CERCLA §106 shall, to the extent practicable considering the exigencies of the situation, attain the applicable or relevant and appropriate requirements under Federal environmental law including but not limited to, Toxic Substances Control Act (TCSA), 15 U.S.C. Section 2601 et seq., Clean Air Act (CAA), 42 U.S.C. Section 7401 et seq., Solid Waste Disposal Act (SWDA), 40 U.S.C. Section 6901 et seq., the Resource Conservation and Recovery Act RCRA, 42 U.S.C. Section 6901 et seq., Fish and Wildlife Coordination Act (FWCA) 16 U.S.C. Section 661 et seq., Hazardous Materials Transportation Act (HMTA) 49 U.S.C. Section 1801 et seq., or any promulgated standard, applicable or relevant and appropriate requirements, criteria or limitations under a State environmental or facility citing law that is more stringent than any Federal standard, requirement, criteria, or limitation contained in a program approved, authorized or delegated by the Administrator and identified to the President by the State.

The DOT regulations contain requirements for transportation of hazardous materials, including hazardous wastes, to locations offsite. All hazardous substances, pollutants, or contaminants removed offsite for treatment, storage, or disposal were treated, stored, or disposed of at a property in compliance, as determined by EPA, pursuant to CERCLA Section 121(d)(3), 42 U.S.C. Section 121(d)(3), and the following rule: "Amendment to the National Oil and Hazardous Substances Pollution Contingency Plan; Procedures for Planning and Implementing Offsite Response Action: Final Rule," 58 FR 49200 (September 22, 1993), and codified at 40 CFR § 300.440."

Because onsite storage of hazardous wastes may exceed ninety days once the Site was transferred to the PRP or Receiver on August 2, 2010, RCRA storage requirements found at 40 CFR § 265 were adhered to regarding drum and tote staging, segregation, containment, and signage.

5. Schedule

The EPA obtained access through written and verbal means from the PRP and counsel and initiated an emergency assessment and classic emergency removal action at the Site on July 2, 2010. The final shipment of waste was conducted on July 30. Demobilization of onsite equipment and frac tanks was conducted on August 2, 2010.

B. Estimated Costs

Extramural Costs:

ERRS	\$	1,100,000
START	\$	200,000
TOTAL EXTRAMURAL COSTS	\$	1,300,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If this response action was not taken at the Site, adjacent residents and workers would continue to be in danger of being exposed to hazardous substances that had and would continue to be released. As cited above, such exposure could possibly lead to adverse health effects including coma and death.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with this Site.

VIII. ENFORCEMENT

The total costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$ 1,928,956.65.

(Direct Cost) + (Other Direct) + (42.63% of Total Direct [Indirect Cost]) =
Estimated EPA Cost for a Removal Action

\$ 1,300,000 + \$52,420 + (42.63% x (\$1,300,000 + \$ 52,420)) = \$1,928,956.65


Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2002. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only, and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor the deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

IX. RECOMMENDATION

This decision document represents the selected removal action for the U.S. Oil Recovery (USOR) and MCC properties (collectively, the Site), both located in Pasadena, Texas, developed in accordance with CERCLA, 42 U.S.C. § 9601 et seq., and not inconsistent with the NCP, 40 C.F.R. Part 300. This decision is based on the administrative record for the Site.

Conditions at the site met the criteria as defined by Section 300.415(b) (2) of the NCP, 40 C.F.R. § 300.415(b) (2), for a removal, and I recommend your formal approval of the documented removal action. The total project ceiling is \$ 1,928,956.65. Of this, an estimated \$1,100,000 was expended from the Regional Removal Allowance.

Approved:


Samuel Coleman, P.E., Director
Superfund Division

Date:

3/24/11

Attachments